

What is claimed is:

1. An apparatus for authenticating the identity of a person, comprising a wrist-worn display for providing information to a wearer of the apparatus; an image sensor for obtaining an image of the wearer when the wearer views the display; and a memory for storing a baseline profile of the wearer, the baseline profile being based upon the image, wherein the image sensor repeatedly obtains additional images for comparison to the baseline profile.

2. The apparatus according to claim 1, wherein the apparatus develops a response when comparison of the additional images to the baseline profile indicates that identity of the wearer cannot be confirmed.

3. The apparatus according to claim 2, wherein the response disallows a transaction attempted by the wearer.

4. The apparatus according to claim 3, further comprising a general purpose processor for making the comparison of the additional images to the baseline profile.

5. The apparatus according to claim 3, further comprising a transceiver for communicating the additional images to an external computer system.

6. The apparatus according to claim 5, wherein the external computer system performs a superresolution technique on the additional images.

7. The apparatus according to claim 5, wherein the external computer system performs an image recognition technique on the additional images.

8. A method for authenticating the identity of a person comprising:
obtaining baseline samples of biometric data from the person;
forming a baseline profile from the biometric data;
repeatedly obtaining additional biometric data from the person in response to the person accessing a portable device for information;

6 comparing the additional data to the baseline profile for authenticating
7 identity of the person; and
8 developing a response to said comparing.

1 9. The method according to claim 8, wherein said information comprises
2 time of day.

1 10. The method according to claim 9, wherein said portable device is
2 wrist-worn.

1 11. The method according to claim 8, wherein said obtaining baseline
2 samples comprises obtaining an image of the person's face.

1 12. The method according to claim 11, wherein said obtaining baseline
2 samples comprises obtaining an image of the person's iris.

1 13. The method according to claim 8, wherein said obtaining baseline
2 samples comprising obtaining a fingerprint image of the person.

1 14. The method according to claim 8, further comprising performing a
2 superresolution algorithm on the baseline samples.

1 15. The method according to claim 14, further comprising communicating
2 the baseline samples from the portable device to an external computer system,
3 wherein said performing the superresolution algorithm is performed in the
4 external computer system.

1 16. The method according to claim 15, wherein the external computer
2 system performs said comparing the additional data to the baseline samples.

1 17. The method according to claim 15, further comprising upgrading a
2 superresolution algorithm stored in the external computer.

18. The method according to claim 8, said comparing being by the portable device.

19. The method according to claim 8, said comparing being a computer system that is external to the portable device.

20. The method according to claim 19, wherein the external computer system includes mass storage for storing the additional biometric data.

21. The method according to claim 8, wherein the response disallows a transaction attempted by the wearer.

22. The method according to claim 21, said comparing comprising:
forming a level of confidence that the identity of the person is correct;
and
comparing the level of confidence to predetermined minimum
threshold level.

23. The method according to claim 22, said predetermined minimum threshold being for a particular transaction attempted by the person.

24. The method according to claim 21, further comprising sensing that the device is not being worn by the person and developing the response when the device is not being worn by the person.

25. The method according to claim 24, said sensing that the device is not being worn by the person comprising sensing a body temperature of the person.

26. The method according to claim 25, said sensing that the device is not being worn by the person comprising sensing a bio-noise of the person.

27. The method according to claim 8, further comprising:
sensing environmental information; and

3 including the environmental information in the baseline profile.

1 28. The method according to claim 27, wherein said environmental
2 information comprises geographic location.

1 29. The method according to claim 8, further comprising updating the
2 baseline sample by the additional biometric data when the additional biometric
3 data successfully authenticates the identity of the person.

1 30. A method for authenticating the identity of a person comprising:
2 obtaining baseline samples of biometric data from the person over a
3 period of at least one day;
4 forming a baseline profile from the biometric data;
5 repeatedly obtaining additional biometric data from the person;
6 comparing the additional data to the baseline profile for authenticating
7 identity of the person; and
8 developing a response to said comparing.

1 31. The method according to claim 30, further comprising freezing the
2 baseline profile after said obtaining baseline samples.

1 32. The method according to claim 30, further comprising updating the
2 baseline sample by the additional biometric data when the additional biometric
3 data successfully authenticates the identity of the person.

1 33. The method according to claim 30, wherein the response disallows a
2 transaction attempted by the wearer.

1 34. The method according to claim 30, wherein the baseline samples are
2 collected while the person goes about his or her normal activities.

1 35. The method according to claim 30, wherein said obtaining baseline
2 samples comprises obtaining an image of the person's face.

1 36. The method according to claim 35, wherein said obtaining baseline
2 samples comprises obtaining an image of the person's iris.

1 37. The method according to claim 30, wherein the baseline samples
2 include voice samples of the person.

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